AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An arrangement comprising:

a field device configured to monitor a technical process of a process installation in which there is at least one pipeline carrying process media in a first direction and having an opening formed in a surface of the at least one pipeline, the field device having a housing, a sensor configured to be inserted through the opening of the at least one pipeline in a second direction substantially perpendicular to the first direction, a wire-free communication interface, at least one field device face facing the process, and at least one field device face facing away from the process; and

a thermoelectric transducer having a transducer face facing the process and a transducer face facing away from the process, the thermoelectric transducer being arranged in or on the field device outside the at least one pipeline carrying the process media such that the transducer face facing the process is arranged outside the at least one pipeline carrying the process media, the transducer being configured to convert at least one of heat flow in the field device between the field device face facing the process and the field device face facing away from the process, and heat flow through the thermoelectric transducer between the transducer face facing the process and the transducer face facing away from the process, to electrical energy for supplying electrical power to the field device.

2. (Previously Presented) The arrangement as claimed in claim 1, wherein the thermoelectric transducer is configured to convert at least one of the heat flow in the field device between the field device face facing the process and the field device face facing away from the process, and the heat flow through the thermoelectric transducer between the transducer face facing the process and the transducer face facing away from the process, to electrical energy irrespective of a direction of the heat flow.

3. (Previously Presented) The arrangement as claimed in claim 1, wherein the thermoelectric transducer is connected to a heat sink on the transducer face facing away from the process.

4. (Previously Presented) The arrangement as claimed in claim 3, wherein the thermoelectric transducer is fitted entirely within the housing and the heat sink is fitted at least partially within the housing.

5. (Previously Presented) The arrangement as claimed in claim 3, wherein the field device is equipped with an energy store and an energy management system, which is integrated in a controller or in a control, data acquisition and processing module.

6. (Currently Amended) A method for supplying electrical power to a field device, comprising:

monitoring of a technical process in a process installation in which there is at least one pipeline carrying process media in a first direction and having an opening formed in a surface of the at least one pipeline, with a field device having a wire-free communication interface, at least one field device face facing the process and at least one field device face facing away from the process, the field device having a housing equipped with a thermoelectric transducer outside the at least one pipeline carrying the process media to be monitored by the field device, the thermoelectric transducer having a transducer face facing the process and arranged outside the at least one pipeline carrying the process media, and a transducer face facing away from the process; and

converting heat flow in the field device between the field device face facing the process and the field device face facing away from the process and/or heat flow through the thermoelectric transducer between the transducer face facing the process and the transducer face facing away from the process to electrical energy by the thermoelectric transducer for supplying power to the field device.

7. (Previously Presented) The method as claimed in claim 6, comprising:

converting at least one of the heat flow in the field device between the field device face facing the process and the field device face facing away from the process, and the heat flow through the thermoelectric transducer between the transducer face facing the process and the transducer face facing away from the process to electrical energy irrespective of a direction of the heat flow.

8. (Previously Presented) The method as claimed in claim 7, comprising:

defining a path for the heat flow in the field device by a heat sink which is fitted on the transducer face facing away from the process.

9. (Previously Presented) The method as claimed in claim 8, comprising:

controlling energy consumption of the field device by an energy management system, with the energy management system being integrated in a controller or in a control, data acquisition and processing module, and being connected via the wire-free communication interface with a central control and/or service station.

10. (Previously Presented) The method as claimed in claim 9, comprising:

minimizing the energy consumption of the field device as a function of a state of an energy store which is arranged in the field device, and/or of actual measurement variables and/or of their rate of change with time and/or of an instantaneous installation state, which is known to the central control and/or service station.

11. (Previously Presented) The arrangement as claimed in claim 2, comprising:

connecting the thermoelectric transducer to a heat sink on the transducer face facing away from the process.